DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007477
Date Inspected: 23-Jun-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Oregon Iron Works Clackamas, Or.

OSM Arrival Time: 700
OSM Departure Time: 1630
Location: Clackamas, Oregon

CWI Name:	Mike Gregson, Jose Salazar			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Hinge K Pipe Beams

Summary of Items Observed:

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

OIW Fabrication Shop-Bay 1:
QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the duration of the shift.
Hinge-K Pipe Beam Sub Assembly, cap plates MK#109.

OIW Fabrication Shop-Bay 3 (sub-assembly):
QA Observations: General On-Going Fabrication- Caltrans QA observed OIW continuing with the fabrication of the hinge k pipe beams, for the SAS Superstructure. The general fabrications of said items consist of fitting, tack welding and welding.
In-Process Welding - Caltrans QA Inspector observed OIW joining by partial joint penetration (PJP) and fillet welding radial stiffener plates to vertical stiffeners and forging to manufacture pipe beam base assembly MK#102A-4 using a SAW process.
In-Process Welding - Caltrans QA Inspector observed OIW joining by partial joint penetration (PJP) welding ring stiffeners plates to half fuse sections to manufacture pipe beam fuse sub-assembly MK#a124-16 using a SAW process.

OIW Fabrication Shop-Bay 3 (sub-assembly):
QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the

duration of the shift.
Hinge-K Pipe Beam Sub Assembly, MK#120A-7 – MK#a124-5 half fuse to MK#a124-15 half fuse.
Hinge-K Pipe Beam Sub Assembly, MK#120A-5 – MK#a124-2 half fuse to MK#a124-14 half fuse.
Hinge-K Pipe Beam Sub Assembly, Half fuse section MK#a124-8.

OIW Fabrication Shop-Bay 6 (stainless overlay):
QA Observations: General On-Going Fabrication- Caltrans QA observed OIW continuing with the fabrication of the hinge k pipe beams, for the SAS Superstructure. The general fabrications of said items consist of hinge K pipe beam fuse stainless overlay.
In-Process Welding - Caltrans QA Inspector observed OIW welding stainless overlay using Soudotape 309L for the 1st layer and for the 2nd and 3rd layer using Soudotape 316L. The overlay will be 60 mm wide by approximately 5 mm thick as it wraps around the pipe beam fuse mark #120A and will continue in this pattern for the length of pipe beam fuse. Currently OIW is performing the overlay process on MK120A-4 the 2nd layer.

OIW Fabrication Shop-Bay 6 (sub-assembly):
QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the duration of this shift.
Hinge-K Pipe Beam Sub Assembly, MK#120A-1 – MK#a124-6 half fuse to MK#a124-7 half fuse.

OIW Storage Yard
Hinge-K Pipe Beam Base Assembly, MK#102A-2 - MK#a111-2 forging to MK#a110-2 base plate idle.
Hinge-K Pipe Beam Base Assembly, MK#102A-3 - MK#a111-3 forging to MK#a110-3 base plate idle.
Hinge-K Pipe Beam Sub Assembly, MK#120A-3 – MK#a124-10 half fuse to MK#a124-12 half fuse with stainless steel overlay.
Hinge-K Pipe Beam Sub Assembly, MK#120A-2 – MK#a124-3 half fuse to MK#a124-11 half fuse.
Note: QA Inspector Brannon also, observed pending repairs for MK#102A-2 weld joint W2-13 and MK#102A-3 weld joint W2-13 both have pending 1st time UT repairs.

A G Machine Works
Hinge-K Pipe Beam Fuse Assembly 120A-5, 120A-6:
(a124-14 Half Fuse to a124-2 Half Fuse) & (a124-1 Half Fuse to a124-9 Half Fuse)
QA Inspector arrived at A&G Machining, on this date and A&G explained that OIW Machinist had previously arrived to verify A&G roundness measurements and released this fuse assembly 120A-6 to A&G, to begin rough machining. A&G Machinist explained to QA Inspector that the first cut pass was approximately .160” (4mm) deep and approximately 40% complete, as shown in attached picture below. A&G explained that the remaining two cut passes would also be approximately .160” (4mm) deep and that the rough machining would probably be completed on 6/22/09 p.m., or 6/23/09 a.m. A&G explained that OIW machinist would be present on 6/25/09, after completion of rough machining to verify final outside diameter dimensional checks and possibly release this fuse assembly, back to OIW fabrication shop.

Caltrans Status and Production Tracking:
QA Inspector Brannon also updated Caltrans status and production tracking logs for tracking of check samples, procedure qualification record (PQR), critical weld repairs (CWR), non-critical welding repairs (WRR), completed and in process welding, QC/QA non-destructive testing.

WELDING INSPECTION REPORT

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Summary of Conversations:

As noted within this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon,Sherri	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer